Management of Donors & Units Initially Reactive for HBsAg (12/2/87)

December 2, 1987

FROM: Director, Office of Biologics Research and Review
Food and Drug Administration

SUBJECT: Recommendations for the Management of Donor and Units (1) that are Initially Reactive for Hepatitis B Surface Antigen (HBsAg) [Footnote (1) Throughout these recommendations, "unit" has been used as if it were synonymous with an entire donation. However, it is intended to apply to all components prepared from the unit in question.]

TO: All Registered Blood Establishments

These recommendations set forth a series of procedures by which an initially HBsAg reactive donor may be reevaluated by a blood establishment, providing that all other donor suitability requirements are met. The decision of whether an initially reactive donor is to be reevaluated is left to the blood establishment. Furthermore, a blood establishment may adopt more stringent procedures, provided they are consistent with these recommendations. At each step in this procedure, the performance of each test and the interpretation of results should be as specified in the package insert for that kit.

I. Test for HBsAg ("Screening Test")

Each donation shall be tested for HBsAg by an FDA-licensed test of third-generation sensitivity (21 CFR 610.40). [Footnote 2: Exceptions to each donation being tested for HBsAg may be made in the case of donations from "dedicated donors" as described in "Revised Guidelines for the Collection of Platelets, Pheresis," January 1985.]

a. If the initial test result is non-reactive, the donor may be accepted and the unit may be used for transfusion or further manufacturing.

b. If the initial test result is reactive, the sample should be retested, in duplicate.

i. If the sample is not repeatably reactive, the donor may be accepted and the unit may be used for transfusion or further manufacturing.

ii. If the sample is repeatably reactive (i.e., if either or both of the duplicates are reactive), the unit should not be used for transfusion or further manufacturing, except as provided in 21

CfR 610.80(d). for evaluation of the donor, the sample should be tested by an FDA-licensed confirmatory (neutralization) test for HBsAg. See Section II.

iii. If repeat testing is inconclusive, not done in duplicate, initially misinterpreted, etc., see Section V and treat the unit as reactive.

II. Confirmatory Test for HBsAg

a. If the sample is confirmed positive, the donor is permanently deferred.

b. If the sample is not neutralizable, it should be tested for anti-HBc with an FDA-approved test. See Section III.

c. If testing is inconclusive, see Section V and treat the unit as reactive.

III.Test for Anti-HBc

The testing referred to in this Section is intended to evaluate further the status of the donor. If this testing has already been performed in the course of surrogate testing for this donation, those results may be used.

a. If the initial test result is reactive, the test should be repeated in duplicate with that kit.

i. If the sample is repeatably reactive (i.e., if either or both of the duplicates are reactive), the donor should be permanently deferred.

ii. If the sample is not repeatably reactive, proceed as in Section III.b, below.

b. If the sample is non-reactive, the donor need not be excluded but should be put in a status than will require review (see Section IV) at the time of the subsequent donation, after a minimum of eight weeks.

c. If testing is inconclusive, not done in duplicate, initially misinterpreted, etc., see Section V and treat the unit as reactive.

IV. Tests at the Time of the Subsequent Donation

A minimum of eight weeks should elapse between the previous donation (i.e., that considered in Sections I-III) and the one considered in this Section. A sample drawn at the time of this subsequent donation should be initially tested and, if reactive, retested in duplicate for HBsAg and for

anti-HBc as indicated in Sections I and III, respectively, above.

a. If the sample drawn at this time is reactive for anti-HBc (regardless of the result of the test for HBsAg), the donor should be permanently deferred and the unit should not be used.

b. If the sample drawn at this time is non-reactive for anti-HBc and the initial test result is non-reactive for HBsAg, the donor may be accepted and the unit may be used.

c. If the sample drawn at this time is non-reactive for anti-HBc and the initial test result is reactive for HBsAg, the sample should be subjected to the testing algorithm which begins with I.b, above. [Footnote 3: If this testing leads to point III.a.ii or III.b, above, i.e., if the sample is repeatably reactive for HBsAg but not neutralizable in the confirmatory test for HBsAg and non-reactive for anti-HBc, the unit should not be used but the donor may (at his/her own discretion and that of the establishment) return and re-enter the testing scheme at point IV, above. Such returns may be repeated (at the discretion of the donor and the establishment) until a final decision (i.e., that equivalent to IV.a or IV.b) can be made on the basis of the testing algorithm. (It is recommended that, for the initial and the second donations, the tests for HBsAg be performed with one type of kit -- e.g., mouse monoclonal EIA from the same manufacturer. If the results suggest that the samples are repeatably reactive but not confirmed because of interaction with animal antibody used in this kit, a kit employing antibody from a different species may be used to test subsequent donations.)

V. If, at any point after an initially reactive result for HBsAg but before completion of the testing on a donation, the quantity of material from that donation becomes insufficient for completion of the testing, the unit must not be used and the testing algorithm which begins with IV, above, should be used in determining donor acceptability.

The recommendations contained in this memorandum may be implemented immediately. Any questions concerning the recommendations should be addressed to Dr. Robin Biswas, Division of Blood and Blood Products, at (301) 496-4288.

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